

of this section or the most recent measurements made by the licensee establishing the value of *F*. In the case of composite transmitters or those in which the final amplifier stages have been modified pursuant to FCC approval, the licensee must furnish the FCC and also retain with the station records the measurement data used as a basis for determining the value of *F*.

(ii) Using measurement data shown on the transmitter manufacturer's test data supplied to the licensee; *Provided*, That measurements were made at the authorized frequency and transmitter output power.

(iii) Using the transmitter manufacturer's measurement data submitted to the FCC for type acceptance and as shown in the instruction book supplied to the licensee.

(Secs. 4, 5, 303, 48 Stat., as amended, 1066, 1068, 1082 (47 U.S.C. 154, 155, 303))

[44 FR 58731, Oct. 11, 1979, as amended at 45 FR 28141, Apr. 28, 1980; 48 FR 38479, Aug. 24, 1983; 49 FR 4210, Feb. 3, 1984; 49 FR 49851, Dec. 24, 1984]

§ 73.277 Permissible transmissions.

(a) No FM broadcast licensee or permittee shall enter into any agreement, arrangement or understanding, oral or written, whereby it undertakes to supply, or receives consideration for supplying, on its main channel a functional music, background music, or other subscription service (including storecasting) for reception in the place or places of business of any subscriber.

(b) The transmission (or interruption) of radio energy in the FM broadcast band is permissible only pursuant to a station license, program test authority, construction permit, or experimental authorization and the provisions of this part of the rules.

[29 FR 7471, June 10, 1964. Redesignated at 39 FR 38655, Nov. 1, 1974 and amended at 48 FR 28454, June 22, 1983]

§ 73.293 Use of FM multiplex subcarriers.

Licensees of FM broadcast stations may transmit, without further authorization, subcarrier communication

services in accordance with the provisions of §§ 73.319 and 73.322.

[51 FR 17028, May 8, 1986]

§ 73.295 FM subsidiary communications services.

(a) Subsidiary communication services are those transmitted on a subcarrier within the FM baseband signal, but do not include services which enhance the main program broadcast service, or exclusively relate to station operations (see § 73.293). Subsidiary communications include, but are not limited to services such as functional music, specialized foreign language programs, radio reading services, utility load management, market and financial data and news, paging and calling, traffic control signal switching, bilingual television audio, and point to point or multipoint messages.

(b) FM subsidiary communications services that are common carrier in nature are subject to common carrier regulation. Licensees operating such services are required to apply to the FCC for the appropriate authorization and to comply with all policies and rules applicable to the service. Responsibility for making the initial determinations of whether a particular activity is common carriage rests with the FM station licensee. Initial determinations by licensees are subject to FCC examination and may be reviewed at the FCC's discretion.

(c) Subsidiary communications services are of a secondary nature under the authority of the FM station authorization, and the authority to provide such communications services may not be retained or transferred in any manner separate from the station's authorization. The grant or renewal of an FM station permit or license is not furthered or promoted by proposed or past services. The permittee or licensee must establish that the broadcast operation is in the public interest wholly apart from the subsidiary communications services provided.

(d) The station identification, delayed recording and sponsor identification announcements required by §§ 73.1201, 73.1208, and 73.1212 are not applicable to material transmitted under an SCA.

(e) The licensee or permittee must retain control over all material transmitted in a broadcast mode via the station's facilities, with the right to reject any material that it deems inappropriate or undesirable.

[48 FR 28454, June 22, 1983, as amended at 48 FR 44805, Sept. 30, 1983; 49 FR 33663, Aug. 15, 1984; 50 FR 32416, Aug. 12, 1985; 57 FR 48333, Oct. 23, 1992]

§ 73.297 FM stereophonic sound broadcasting.

(a) An FM broadcast station may, without specific authority from the FCC, transmit stereophonic (biphonic, quadrasonic, etc.) sound programs upon installation of stereophonic sound transmitting equipment under the provisions of §§ 2.1001, 73.322, and 73.1590 of the Rules. Prior to commencement of stereophonic sound broadcasting, equipment performance measurements must be made to ensure that the transmitted signal complies with all applicable rules and standards.

(b) Each licensee or permittee engaging in multichannel broadcasting must measure the pilot subcarrier frequency as often as necessary to ensure that it is kept at all times within 2 Hz of the authorized frequency.

[48 FR 28454, June 22, 1983, and 48 FR 38479, Aug. 24, 1983]

§ 73.310 FM technical definitions.

(a) *Frequency modulation.*

Antenna height above average terrain (HAAT). HAAT is calculated by: determining the average of the antenna heights above the terrain from 3 to 16 kilometers (2 to 10 miles) from the antenna for the eight directions evenly spaced for each 45° of azimuth starting with True North (a different antenna height will be determined in each direction from the antenna); and computing the average of these separate heights. In some cases less than eight directions may be used. (See § 73.313(d).) Where circular or elliptical polarization is used, the antenna height above average terrain must be based upon the height of the radiation of the antenna that transmits the horizontal component of radiation.

Antenna power gain. The square of the ratio of the root-mean-square (RMS) free space field strength produced at 1

kilometer in the horizontal plane in millivolts per meter for 1 kW antenna input power to 221.4 mV/m. This ratio is expressed in decibels (dB). If specified for a particular direction, antenna power gain is based on that field strength in the direction only.

Center frequency. The term "center frequency" means:

(1) The average frequency of the emitted wave when modulated by a sinusoidal signal.

(2) The frequency of the emitted wave without modulation.

Composite baseband signal. A signal which is composed of all program and other communications signals that frequency modulates the FM carrier.

Effective radiated power. The term "effective radiated power" means the product of the antenna power (transmitter output power less transmission line loss) times: (1) The antenna power gain, or (2) the antenna field gain squared. Where circular or elliptical polarization is employed, the term effective radiated power is applied separately to the horizontal and vertical components of radiation. For allocation purposes, the effective radiated power authorized is the horizontally polarized component of radiation only.

Equivalent isotropically radiated power (EIRP). The term "equivalent isotropically radiated power (also known as "effective radiated power above isotropic)" means the product of the antenna input power and the antenna gain in a given direction relative to an isotropic antenna.

FM Blanketing. Blanketing is that form of interference to the reception of other broadcast stations which is caused by the presence of an FM broadcast signal of 115 dBu (562 mV/m) or greater signal strength in the area adjacent to the antenna of the transmitting station. The 115 dBu contour is referred to as the blanketing contour and the area within this contour is referred to as the blanketing area.

FM broadcast band. The band of frequencies extending from 88 to 108 MHz, which includes those assigned to non-commercial educational broadcasting.

FM broadcast channel. A band of frequencies 200 kHz wide and designated by its center frequency. Channels for FM broadcast stations begin at 88.1